

Hydroponics may provide better agriculture solutions

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New Delhi, December 20 (India Science Wire): With rise in the population size the demand for food is also increasing and expected to increase up to 59% to 98% by 2050. Looking at this emerging demand hydroponics may be seen as a better technique of agriculture. Keeping this in mind Council of Scientific and Industrial Research- Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur is determined to develop small low cost hydroponic system which is suitable for urban agriculture and small scale said Dr. Ashish Warghat, Scientist, CSIR-IHBT.

The institute organized a four-day training program on hydroponic cultivation system. “There were 43 progressive farmers, unemployed youth and students from Himachal Pradesh, Uttarakhand, Jammu, Manipur and Nagaland states participated in this programme. The participants were provided with technical knowhow and practical exposure of plant propagation in hydroponic system” told Dr Bhavya Bhargav, training organizer, CSIR-IHBT.

Dr. Warghat, gave practical exposure for cultivation of herbs, spices and floriculture crops under hydroponics system. “Although the initial investment cost for setting up the hydroponics system is high but in long run it will provide better returns to farmers” he said.



Dr. Sanjay Kumar, Director, CSIR-IHBT told that knowledge of modern high tech agriculture is the need of hour. It is essential to empower the youth to grow high value crops of demand under controlled system. During his talk Dr Kumar told that hydroponics offers opportunities to young farmers for startup business for the production of nutrient-rich spices, herbal and high value crops which has huge demand in the urban market. “The practice assumes significance as the rural regions in India witnessing

population shift in recent years due to animal menace and poor returns from traditional farming system. This system is perfect solution for growing plants in limited space” said Dr Kumar.



Hydroponics is the technique of growing plants without soil by using water solvent which consists of mineral nutrient. Dr Sanjay Kumar said that this system provides higher yield and economic returns compared to traditional agricultural practices, because of increase in harvest cycles and balanced nutrient supply. “Urbanization led to high-density cities and scarcity of land. Hydroponic systems are engineered as a highly space and resource efficient form of farming and represent a considerable source of industrially grown produce” he said. The participants were introduced to hydroponic system and made aware about the water quality, growing systems, nutrient solutions, crop physiology and crop protection.

Dr Rakesh Kumar, Principal Scientist and Programme coordinator told that hydroponic system is not affected by weather, wild animals and any of the other external biotic or abiotic factors. In addition to these benefits hydroponic system also make less and efficient utilization of water. Furthermore, participants were also made aware about the elimination of use of artificial ripening agents, herbicides and pesticides in hydroponic system, which helps in creating nutritionally superior harvest of food products. “The overall hydroponics system market is projected to grow from USD 8.1 billion in 2019 to USD 16.0 billion by 2025, at a CAGR of 12.1%” he said. (India Science Wire)

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